

## They Make Bridges Out Of Fiberglass

If the bridges in your county are deteriorating or were swept away by spring flooding, you might want to tell your local or state highway officials about this new alternative to conventional steel and concrete structures.

The first fiberglass bridge in the U.S. went up over No Name Creek near Russell, Kan., last Nov. 8. Weighing just 24,000 lbs., the 22-ft. long by 27 ft.-wide span, complete with 36-in. guard rails, is built out of three panels of layered fiberglass. It consists of a 1/2-in. thick top layer, a 3/4-in. bottom layer and a 22-in. honey-comb middle layer. It's made up of 30 percent recycled materials.

"Nearly every state has 2,000 or more short span bridges and 80 percent of them need repairing or replacing," says Jerry Plunkett of Kansas Structural Composites Inc. (KSCI), the Russell, Kan., company pioneering the new concept.

"At this time, fiberglass bridges cost somewhat more than conventional ones but they'll become more price competitive as we refine manufacturing and production techniques," he says. "Because water and ice don't affect them, they'll last 50 to 100 years, compared with the 15 or 20-year life expectancy of a conventional bridge. They also require less time to put up so roads aren't closed as long. The No Name Creek bridge was installed with a crane in four hours, likely a U.S. record.

"They weigh five to 10 times less than conventional bridges, but laboratory test data shows that to cause a short-term, complete structural failure would require a load of 1 1/2 million pounds to be placed in the



**A crane was used to lower a 22-ft. long by 27-ft. wide fiberglass span - complete with guard rails - onto existing abutments.**

center of the span. That's the equivalent of 10 U.S. M1-A1 tanks being balanced on the structural mid-point, or 18 to 20 times more weight than a conventional bridge can handle."

Once the bridges go into full production, the company expects to be able to produce a short span bridge for about \$30,000 and to manufacture up to 10 bridges in an eight hour shift. The company is also looking at its composite fiberglass panels for possible use in portable buildings, domes, arch enclosures, piers, retaining walls, sound barriers, and other structures.

Contact: FARM SHOW Followup, Kansas Structural Composites Inc., 2649 E. Wichita, Russell, Kan. 67665 (ph 913 483-2589; fax 5321).

## 2-Wheel Bale Dolly Designed To Move Bales

"It's the greatest thing since baled hay," says RandallLyn Enterprises about its new two-wheel dolly for moving three to five small square bales.

The "Bale Buddy" consists of a 37-in. wide cart constructed of 12-ga. steel tubing. It's fitted with two 4-in. turf tires, spaced 33 in. apart for balance. It works like a conventional two-wheeler.

Options include a saddle rack (carries three saddles), flake feeder, wheel barrow, and flotation tires.

Sells for \$429 plus S&H.  
Contact: RandallLyn Enterprises Inc., P.O. Box 21477, Keizer, Ore. 97307 -1477 (ph 888 254-8101 or 503 540-3400; fax 7335).



**The 37-in. wide cart can be used to move up to five small square bales.**

## Air-Tight "Bale Patch" Tape

You can quickly patch holes in hay tarps, silage bale bags, truck tarps, etc., using a new air-tight "bale patch" tape, says Fabric Sales Co., Inc., Mason, Tenn.

The white-colored tape is made from woven polyethylene and has an acrylic adhesive on the back side.

"It works on any surface including polyethylene, canvas, and burlap," says inventor Don James, who designs fabrics for industrial applications. "It's not a permanent solution but it'll stay on for a long time. It works better than duct tape because it's resistant to ultraviolet rays. It's fairly expensive because the adhesive system that makes it work is expensive. However, if it protects

the value of your product it's worth it.

"I came up with the idea five years ago while looking for a better way to close sample holes in cotton bales. Arizona farmers have used it to patch big hay tarps made from woven polyethylene, and it's also been used on curtains in poultry buildings."

The tape is available in 4, 6, and 12-in. widths and is sold by the case in rolls that are 160 ft. long. There are fifteen 4-in. wide rolls, ten 6-in. wide, and five 12-in. wide rolls per case. Sells for \$95 plus S&H.

Contact: FARM SHOW Followup, Fabric Sales Co., Inc., 1535 McKnight Loop, Mason, Tenn. 38049 (ph 800 654-6917 or 901 867-8684; fax 901 867-8325).

## Slope Alarm For Farm Equipment

Inexperienced operators can tell at a glance if they're operating at an angle that's too steep to be safe with a new slope alarm that mounts in the cab.

R.B. Mfg's slope indicator is a visual warning device, marked off in various increments up to as much as 50° off center. Thirty degrees is agreed by safety experts to be the point at which equipment tip-overs are likely to occur, note inventors Rick Hedgecock and Brenda Martin of Riverside, Mo.

He notes that the gauge gives an experienced operator a baseline to go by and also lets you give specific operating instructions

to kids and other less experienced operators.

Along with enhancing safety, the slope indicator is ideal for laying out contours and 1 to 3 percent grades, Hedgecock adds.

Available in three models for everything from riding mowers up to 4-WD tractors and combines. Soon-to-be-introduced model, being developed with the Honeywell Corp., features an audible alarm.

They sell for \$24.99, \$31.99, \$44.99 and \$199.00 including S&H.

Contact: FARM SHOW Followup, R.B. Mfg., 4948 NW High Drive, Riverside, Mo. 64151 (ph 816 587-9814).



**Bob Tessier's feeder refills with seed from your house or garage using a computer-controlled air delivery system.**

## Air-Powered Bird Feeder Refills Itself

If you're a serious bird watcher, you'll like this new air-powered bird feeder that lets you refill it with seed from your house or garage without ever having to go outside.

Billed as the world's first fully automated wild bird feeder, the BirdTech system consists of a see-through hopper that holds approximately 20 lbs. of bird seed and a computer-controlled air delivery system that mounts inside a house or garage.

The feeder can be located up to 300 ft. from the house. A 1 1/4-in. dia. plastic pipe is buried a few inches below ground. It carries any type of seed to the company's platform-type cedar feeder.

Bird lover Bob Tessier, who is an electrical engineer by trade, designed the system. He travels a lot and wanted a feeder that would refill itself whether he was home or not. A simple timer turns the unit off and on as needed.

The system can be programmed to operate for 1 to 99 seconds. Filling the feeder usually takes about a minute.

Sells for \$995, not counting the pipe, connectors, and hollow feeder post.

Contact: BirdTech, 245 E. Roselawn, Suite 38, St. Paul, Minn. 55117 (ph toll-free 888 655-9686).



**Covering tillage tools with a shroud simulates nighttime work, say researchers.**

## Doing Fieldwork In Artificial Darkness

Working fields at night reduces the number of weed seeds that germinate. Research by agronomists all over the world has shown that as soil is turned over, just a brief flash of sunlight on dormant weed seeds can cause the seed to come to life. However, doing field work at night is not easy or practical. Lantmannen, a Swedish farm magazine, recently reported on some work being done by researchers to avoid the problem by simu-

lating nighttime. While creating a seedbed, they covered a power harrow with a heavy black canvas shroud that comes right down to the ground. They had to build a light-weight frame around the harrow to support the canvas. But once in place, it did not interfere with operation of the harrow. Researchers say the idea could be used on most any tillage tool.